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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,720	12/11/2003	Cameron J. Dasch	GP-303842	9736

7590 01/10/2005

General Motors Corporation  
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Detroit, MI 48265-3000

EXAMINER
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CHAPMAN JR, JOHN E

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,720

Applicant(s)

DASCH, CAMERON J.

Examiner

John E Chapman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15 and 17-22 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/11/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The abstract of the disclosure is objected to because legal terminology, such as "said," should be avoided. Correction is required. See MPEP § 608.01(b).

2. Claims 5, 8 and 17 are objected to because of the following informalities:

In claim 5, there is no antecedent basis for "said target."

In claim 8, --is-- should follow "end".

In claim 17, there is no antecedent basis for "said proximal end" in line 6.

Appropriate correction is required.

3. Claims 1-4, 8-9 and 17-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wild.

Wild discloses an ultrasonic inspection assembly comprising an ultrasonic transducer 45 mounted on a stage 26, and a drive mechanism 27 for rotating the stage 26 relative to the support structure 11.

Regarding claim 3, the media comprises water (col. 3, lines 10-11).

4. Claims 10, 11, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wild.

Regarding claims 10 and 11, the only difference between the claimed invention and the prior art consists in the material selected for the seal 21 of Wild. Wild teaches forming the seal member 21 of a material which permits transmission without signal deterioration, and it is well

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known in the art to use a compliant polymeric material to transmit ultrasonic beams without signal deterioration. Accordingly, merely to use a compliant polymeric material for the seal 21 of Wild would have been obvious to one having ordinary skill in the art.

Regarding claim 13, Wild discloses a ring gear 26b on stage 26 and an indexing drive 27a and pinion 27b mounted on the support structure 11. The only difference between the claimed invention and the prior art consists in providing the ring gear 26b on the support structure 11 and mounting the indexing drive 27a and pinion 27b on the stage 26, which difference consists in a reversal of elements for achieving the same purpose, namely, rotating the stage 26. The reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is generally recognized as a design consideration within the skill of the art. *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

Regarding claim 15, the only difference between the claimed invention and the prior art consists in the length of the support structure 11 of Wild. Wild does not specify a length of the support structure 11. A change in the size of a prior art device is generally recognized as a design consideration within the skill of the art. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, merely to select a length of 25 mm for the support structure 11 of Wild would have been obvious to one having ordinary skill in the art.

5. Claims 6, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wild in view of Kossoff et al.

Regarding claim 6, it is well known in the art to position a transducer at a required distance so as to provide optimal resolution, as taught by Kossoff et al. Note col. 4, lines 3-6,

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and col. 4, lines 27-32, of Kossoff et al. Accordingly, merely to position the transducer of Wild at a required distance so as to provide optimal resolution would have been obvious to one having ordinary skill in the art.

Regarding claim 12, it is well known in the art to provide a small aperture in order to permit transmission without signal deterioration. Accordingly, merely to provide a small aperture would have been obvious in order to permit transmission without signal deterioration.

Regarding claim 14, Wild discloses a linear array of transducers and means for simultaneous energization of the transducers (col. 4, lines 67). Wild does not specify a phased array. Nevertheless, it is well known in the art to provide a linear phased array in order to provide a sector scan, as taught by Kossoff et al., and it would have been obvious to provide a linear phased array in the apparatus of Wild in order to provide a sector scan along the diametric path of the transducer.

6. Claims 1-3, 6, 8 and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kossoff et al.

Kossoff et al. discloses an ultrasonic inspection assembly comprising an ultrasonic transducer 1 mounted on a stage 3, and a drive mechanism for rotating the stage 3 relative to the support structure 2.

Regarding claim 6, the apparatus of Kossoff et al. provides optimal resolution, i.e., an optimal shape of an ultrasonic beam.

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7. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kossoff et al.

Regarding claim 7, Kossoff et al. does not disclose a seal to prevent fluid from leaking from the proximal end (i.e., bottom) of the support structure 2. Nevertheless, it would have been obvious to provide a seal in order to maintain a coupling fluid with the target 6.

Regarding claim 15, a change in the size of a prior art device is generally recognized as a design consideration within the skill of the art. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, merely to select a length of 25 mm for the support structure 2 of Kossoff et al. would have been obvious to one having ordinary skill in the art.

8. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 16 is allowed.

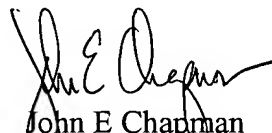
10. The information disclosure statement filed December 11, 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the publication referred to therein has not been considered.

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aoyama et al. discloses a device for inspecting spot welds.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John E Chapman  
Primary Examiner  
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